SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

FotoDent IBT

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation

Material for the manufacturing of dental indirect bonding trays

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Dreve Dentamid GmbH
Max-Planck-Straße 31
DE-59423 Unna

Telephone no.	+49 2303 8807-0
Fax no.	+49 2303 8807-29
Information provided by / telephone	Department Research & Development: Fax: +49 2303 8807-562
E-mail address of person responsible for this SDS	sicherheitsdatenblatt@dreve.com

1.4. Emergency telephone number

Henkel Fire Department / 24h-Emergency-Contact-No.: +49 211 797-3350

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Skin Irrit. 2	H315
Skin Sens. 1A	H317
Repr. 1B	H360Fd.
Aquatic Chronic 2	H411

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word ***

Danger

Hazard statements ***

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H360Fd.	May damage fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P501.1	Dispose of contents/container to industrial incineration plant.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains *** (5-ethyl-1,3-dioxan-5-yl)methyl acrylate; 2-phenoxyethyl methacrylate; 2-Hydroxyethyl acrylate; aliphatic urethane triacrylate; Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; 1,1,1- Trimethylol propane triacrylate

Supplemental information

Further supplemental information ***

Restricted to professional users

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients ***

3.2. Mixtures

Hazardous ingredients ***

2-phenoxyethyl methacrylate

CAS No.	10595-06-9				
EINECS no.	234-201-1				
Registration no.	01-2120752383-55				
Concentration	>=	25	<	50	%

Classification (Regulation (EC) No. 1272/2008)

Skin Sens. 1A	H317
Aquatic Chronic 2	H411
Repr. 2	H361d

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

CAS No.	66492-51-1				
EINECS no.	266-380-7				
Registration no.	01-2119976303-36				
Concentration	>=	25	<	50	%

Classification (Regulation (EC) No. 1272/2008)

Skin Irrit. 2	H315
Skin Sens. 1B	H317
Aquatic Chronic 2	H411

Isodecylmethacrylate

CAS No.	29964-84-9				
EINECS no.	249-978-2				
Registration no.	01-2119894925-17				
Concentration	>=	2,5	<	10	%

Classification (Regulation (EC) No. 1272/2008)

Aquatic Chronic 1	H410

aliphatic urethane triacrylate

Concentration	>=	1	<	10	%

Classification (Regulation (EC) No. 1272/2008)

Skin Sens. 1A	H317
Aquatic Chronic 4	H413

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

CAS No.	75980-60-8				
EINECS no.	278-355-8				
Registration no.	01-2119972295-29				
Concentration	>=	1	<	2,5	%

Classification (Regulation (EC) No. 1272/2008)

Repr. 1B	H360Fd.
Skin Sens. 1B	H317
Aquatic Chronic 2	H411

Supplemental information

The substance is contained in the Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

2-Hydroxyethyl acrylate

CAS No.	818-61-1				
EINECS no.	212-454-9				
Registration no.	01-2119459345-34				
Concentration	>=	0,2	<	1	%

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 3	H311
Skin Corr. 1B	H314
Skin Sens. 1	H317
Aquatic Acute 1	H400

Concentration limits (Regulation (EC) No. 1272/2008)

Skin Sens. 1	H317	>= 0,2	%

ATE	dermal	1.000	mg/kg

Additional remarks:

CLP	Regulation (EC) No 1272/2008, Annex VI, Note D

1,1,1- Trimethylol propane triacrylate

CAS No.	15625-89-5				
EINECS no.	239-701-3				
Registration no.	01-2119489896-11				
Concentration	>=	0,1	<	0,25	%

Classification (Regulation (EC) No. 1272/2008)

Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
Carc. 2	H351
Aquatic Acute 1	H400

Aquatic Chronic 1	H410	

Concentration limits (Regulation (EC) No. 1272/2008)

Aquatic Acute 1	H400	M = 1
Aquatic Chronic 1	H410	M = 1

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid

After inhalation

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

After skin contact

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed

Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO2, powders, water spray/mist, Extinguishing measures to suit surroundings

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor`s instructions.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Pick up rest with suitable absorbent materials. Do not pick up with the help of saw-dust or other combustible substances. Clean contaminated floors and objects thoroughly, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of aerosols. Avoid impact, friction and electro-static loading; risk of ignition! Keep container tightly closed.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges. Avoid impact and friction. Use only explosion-proof equipment. Keep away from combustible material. Wear shoes with conductive soles.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Do not store together with foodstuffs. Do not store with strong oxidizing agents.

Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized. Keep container

tightly closed and in a well-ventilated place. Keep in a cool place

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Other information

Contains no substances with occupational exposure limit values.

Derived No/Minimal Effect Levels (DNEL/DMEL)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,233	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	0,145	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,0833	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	0,0833	mg/kg/d

2-Hydroxyethyl acrylate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	2,4	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	General Population	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	1,2	mg/m³

Isodecylmethacrylate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	2,5	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	5	mg/kg/d

2-phenoxyethyl methacrylate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	12	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	84	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	3,5	mg/kg/d

1,1,1- Trimethylol propane triacrylate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	17,1	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	404	mg/kg/d

Predicted No Effect Concentration (PNEC)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Type of value	PNEC
Type	Saltwater

Concentration	0,00014	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,115	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,0115	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,0222	mg/kg

2-Hydroxyethyl acrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,017	mg/l
Type of value	PNEC	
Type	Marine	
Concentration	0,002	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,0361	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,064	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,006	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,003	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l

Isodecylmethacrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,24	µg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,024	µg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	50	mg/kg

Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,042	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,004	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,008	mg/kg

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	4	µg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,019	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,002	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	30	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	0,001	mg/kg

2-phenoxyethyl methacrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	14,2	µg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	1,42	µg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	1,77	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,665	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,067	mg/kg
Type of value	PNEC	
Type	Soil	

Concentration	0,125	mg/kg

1,1,1- Trimethylol propane triacrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,87	µg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,087	µg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	6,25	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,017	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,002	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,003	mg/kg
Type of value	PNEC	
Type	Secondary poisoning	
Concentration	10	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Do not smoke during work time. Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

Respiratory protection

Do not inhale vapours; Use suitable respiratory protective device in case of insufficient ventilation

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Hand protection must comply with EN 374.
Appropriate Material nitrile

Eye protection

Safety glasses

Body protection

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid		
Colour	clear, transparent		
Odour	characteristic		
Melting point			
Remarks	not determined		
Freezing point			
Remarks	not determined		
Boiling point or initial boiling point and boiling range			
Value	149		°C
Flammability			
evaluation	not determined		
Upper and lower explosive limits			
Remarks	not determined		
Flash point			
Value	100		°C
Method	closed cup		
Auto-ignition temperature			
Remarks	not determined		
Decomposition temperature			
Remarks	not determined		
pH value			
Remarks	not determined		
Viscosity			
Remarks	not determined		
Solubility(ies)			
Remarks	not determined		
Partition coefficient n-octanol/water (log value)			
Remarks	not determined		
Vapour pressure			
Remarks	not determined		
Density and/or relative density			
Value	1,07		g/cm³
Temperature	20	°C	
Relative vapour density			
Remarks	not determined		

9.2. Other information

Odour threshold	
Remarks	not determined
Evaporation rate (ether = 1) :	
Remarks	not determined
Solubility in water	

Remarks	virtually insoluble

Explosive properties

evaluation	not determined

Oxidising properties

Remarks	not determined

Other information

None known

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

No hazardous reactions known.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Protect from heat and direct sunlight

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

Irritant gases/vapours

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

Remarks	Based on available data, the classification criteria are not met.

Acute oral toxicity (Components)

Isodecylmethacrylate

Species	rat (male)		
LD50	>	5000	mg/kg

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species	rat		
LD50	>	5000	mg/kg
Method	OECD 401		

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Species	rat (female)		
LD50	>	2000	mg/kg
Method	OECD 423		

2-phenoxyethyl methacrylate

Species	rat		
LD50	>	5000	mg/kg
Method	OECD 401		

2-Hydroxyethyl acrylate

Species	rat		
LD50		540	mg/kg

aliphatic urethane triacrylate

Species	rat		
LD50	>	5000	mg/kg

1,1,1- Trimethylol propane triacrylate

Species	rat		
LD50	>	5000	mg/kg

Acute dermal toxicity

ATE	>	10.000	mg/kg
Method	calculated value according to GHS (e.g see UN GHS)		

Acute dermal toxicity (Components)

Isodecylmethacrylate

Species	rabbit		
LD50	>	3000	mg/kg

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Species	rat		
LD0	>	2000	mg/kg
Method	OECD 402		

2-phenoxyethyl methacrylate

Species	rat		
LD50	>	2000	mg/kg
Method	92/69/EEC, B.3		

2-Hydroxyethyl acrylate

Species	rat		
LD50	>	1000	mg/kg
Method	OECD 402		

aliphatic urethane triacrylate

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

1,1,1- Trimethylol propane triacrylate

Species	rabbit		
LD50		5170	mg/kg

Acute inhalational toxicity

Remarks: Based on available data, the classification criteria are not met.

Acute inhalative toxicity (Components)

1,1,1- Trimethylol propane triacrylate

Species	rat		
LC50	>	0,55	mg/l
Duration of exposure		6 h	
Administration/Form	Dust/Mist		

Skin corrosion/irritation

evaluation	irritant
Remarks	The classification criteria are met.

Skin corrosion/irritation (Components)

Isodecylmethacrylate

Species	rabbit
evaluation	slight irritant effect - does not require labelling
Source	ECHA

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Species	rabbit
evaluation	irritant
Method	OECD 404

2-phenoxyethyl methacrylate

Species	rabbit
evaluation	slight irritant effect - does not require labelling

2-Hydroxyethyl acrylate

Species	rabbit
evaluation	corrosive

1,1,1- Trimethylol propane triacrylate

Species	rabbit
evaluation	slightly irritant
Method	OECD 404

Serious eye damage/irritation

Remarks	Based on available data, the classification criteria are not met.

Serious eye damage/irritation (Components)

2-phenoxyethyl methacrylate

Species	rabbit
evaluation	slight irritant effect - does not require labelling

2-Hydroxyethyl acrylate

Species	rabbit
evaluation	corrosive

1,1,1- Trimethylol propane triacrylate

Species	rabbit
evaluation	Moderately irritating

Sensitization

evaluation	May cause sensitization by skin contact.
Remarks	The classification criteria are met.

Sensitization (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Route of exposure	dermal
Species	mouse
evaluation	May cause sensitization by skin contact.

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Route of exposure	dermal
Species	mouse
evaluation	sensitizing
Method	OECD 429

2-phenoxyethyl methacrylate

Route of exposure	dermal
Species	guinea pig
evaluation	sensitizing
Method	OECD 406

2-Hydroxyethyl acrylate

Route of exposure	dermal
Species	mouse

evaluation sensitizing

aliphatic urethane triacrylate

Route of exposure dermal
Species guinea pig
evaluation sensitizing

1,1,1- Trimethylol propane triacrylate

evaluation sensitizing

Subacute, subchronic, chronic toxicity

Remarks not determined

Mutagenicity

Remarks Based on available data, the classification criteria are not met.

Reproductive toxicity

Remarks The classification criteria are met.

Reproduction toxicity (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

evaluation Suspected of damaging fertility.

2-phenoxyethyl methacrylate

Route of exposure oral
Species rat
Dose 600 mg/kg/d
evaluation Suspected of damaging fertility. Suspected of damaging the unborn child.
Source ECHA

Carcinogenicity

Remarks Based on available data, the classification criteria are not met.

Carcinogenicity (Components)

1,1,1- Trimethylol propane triacrylate

evaluation Suspected of causing cancer.

Specific Target Organ Toxicity (STOT)

Single exposure

Remarks Based on available data, the classification criteria are not met.

Repeated exposure

Remarks Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Experience in practice

Inhalation may lead to irritation of the respiratory tract.

Other information

No toxicological data are available.

SECTION 12: Ecological information

12.1. Toxicity

General information

not determined

Fish toxicity (Components)

Isodecylmethacrylate

Species	golden orfe (Leuciscus idus)		
LC50	470		mg/l
Duration of exposure	48	h	
Source	ECHA		

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species	carp (Cyprinus carpio)		
LC50	1,4		mg/l
Duration of exposure	96	h	
Method	OECD 203		

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	4		mg/l
Duration of exposure	96	h	
Method	OECD 203		

2-phenoxyethyl methacrylate

Species	golden orfe (Leuciscus idus)		
EC50	appr. 10		mg/l
Duration of exposure	72	h	
Method	OECD 203		

2-Hydroxyethyl acrylate

Species	Fathead minnow (Pimephales promelas)		
LC50	3,61		mg/l
Duration of exposure	96	h	
Remarks	Test conducted with a similar formulation.		

aliphatic urethane triacrylate

Species	zebra fish (Brachydanio rerio)		
EC50	> 100		mg/l
Duration of exposure	96	h	
Method	OECD 203		

1,1,1- Trimethylol propane triacrylate

Species	zebra fish (Brachydanio rerio)		
LC50	0,87		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Daphnia toxicity (Components)

Isodecylmethacrylate

Species	Daphnia magna		
NOEC	54,2		µg/l
Duration of exposure	21	d	
Method	OECD 211		

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species	Daphnia magna		
EC50	3,53		mg/l
Duration of exposure	48	h	
Method	OECD 202		

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Species	Daphnia magna		
LC50	20		mg/l

Duration of exposure	48	h	
Method	OECD 202		

2-phenoxyethyl methacrylate

Species	Daphnia magna		
EC50	1,21		mg/l
Duration of exposure	48	h	
Method	OECD 202		

2-Hydroxyethyl acrylate

Species	Daphnia magna		
EC50	9,3		mg/l
Duration of exposure	48	h	
Method	OECD 202		

2-Hydroxyethyl acrylate

Species	Daphnia magna		
NOEC	0,86		mg/l
Duration of exposure	21	d	
Method	OECD 211		

aliphatic urethane triacrylate

Species	Daphnia magna		
EC50	> 100		mg/l
Duration of exposure	48	h	
Method	OECD 202		

1,1,1- Trimethylol propane triacrylate

EC50	19,9		mg/l
Method	Regulation (EC) No. 440/2008, Annex, C.2		

Algae toxicity (Components)

Isodecylmethacrylate

Species	Desmodesmus subspicatus		
EC50	> 16,9		µg/l
Duration of exposure	72	h	
Method	OECD 201		

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species	Pseudokirchneriella subcapitata		
EC50	> 2,01		mg/l
Duration of exposure	72	h	
Method	OECD 201		

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Species	Desmodesmus subspicatus		
EC50	34		mg/l
Duration of exposure	72	h	
Method	OECD 201		

2-phenoxyethyl methacrylate

Species	Scenedesmus subspicatus		
EC50	4,4		mg/l
Duration of exposure	72	h	
Method	ISO 8692		

2-Hydroxyethyl acrylate

Species	Pseudokirchneriella subcapitata		
EC50	6		mg/l
Duration of exposure	72	h	
Method	OECD 201		

aliphatic urethane triacrylate

Species	Pseudokirchneriella subcapitata		

EC50	>	100		mg/l
Duration of exposure		72	h	
Method	OECD 201			

1,1,1- Trimethylol propane triacrylate

Species	Scenedesmus subspicatus			
EC50		4,86		mg/l
Duration of exposure		96	h	
Method	Regulation (EC) No. 440/2008, Annex, C.3			

Bacteria toxicity (Components)

Isodecylmethacrylate

EC0	>	500		mg/l
Method	OECD 209			

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species	activated sludge			
EC50	>	1000		mg/l
Duration of exposure		3	h	
Method	OECD 209			

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Species	activated sludge			
EC10		300		mg/l
Duration of exposure		3	h	
Method	OECD 209			

2-phenoxyethyl methacrylate

Species	activated sludge			
EC50		177		mg/l
Duration of exposure		3	h	

2-Hydroxyethyl acrylate

Species	activated sludge			
EC10	>	100		mg/l
Duration of exposure		72	h	

1,1,1- Trimethylol propane triacrylate

Species	activated sludge			
EC20		625		mg/l
Duration of exposure		30	min	

12.2. Persistence and degradability

General information

not determined

Biodegradability (Components)

Isodecylmethacrylate

evaluation	Readily biodegradable (according to OECD criteria)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Value	<	0	to	10	%
Duration of test		28	d		
evaluation	not readily degradable				

2-phenoxyethyl methacrylate

evaluation	not readily degradable

aliphatic urethane triacrylate

evaluation	not readily degradable

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

Value		28	%
Duration of test		28	d

evaluation	Moderately/partially biodegradable				
Method	OECD 301 B				

2-Hydroxyethyl acrylate

Value	80				%
Duration of test	28	d			
evaluation	Readily biodegradable (according to OECD criteria)				
Method	OECD 301B / ISO 9439 / EEC 84/449 C5				

1,1,1- Trimethylol propane triacrylate

Value	82	to	90	%	
Duration of test	28	d			
evaluation	Readily biodegradable (according to OECD criteria)				
Method	OECD 301 B				

12.3. Bioaccumulative potential

General information

not determined

Partition coefficient n-octanol/water (log value)

Remarks	not determined

Octanol/water partition coefficient (log Pow) (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

log Pow	3,1	
Temperature	23	°C

2-phenoxyethyl methacrylate

log Pow	3,137	
Method	OECD 117	

2-Hydroxyethyl acrylate

log Pow	-0,17	
Temperature	25	°C

aliphatic urethane triacrylate

log Pow	4,23	
Temperature	20	°C

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

log Pow	1,9	
Temperature	23	°C
Method	OECD 117	

1,1,1- Trimethylol propane triacrylate

log Pow	4,35	
Temperature	20	°C
Source	ECHA	

Bioconcentration factor (BCF) (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

BCF	47	to	55	
Concentration	0,1	mg/l		
Duration of exposure	8	Weeks		
Medium	Freshwater			
Species	carp (Cyprinus carpio)			

12.4. Mobility in soil

General information

not determined

12.5. Results of PBT and vPvB assessment

General information

not determined

Results of PBT and vPvB assessment

The product contains no PBT substances
The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Must not be disposed together with household garbage.
Dispose of waste according to applicable legislation.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off as product waste.

SECTION 14: Transport information ***

	Land transport ADR/RID ***	Marine transport IMDG/GGVSee ***	Air transport ICAO/IATA ***
14.1. UN number or ID number	3082	3082	3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isodecylmethacrylate, 2-phenoxyethyl methacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isodecylmethacrylate, 2-phenoxyethyl methacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isodecylmethacrylate, 2-phenoxyethyl methacrylate)
14.3. Transport hazard class(es)	9	9	9
Label			
14.4. Packing group	III	III	III
Remarks	The product is not subject to any other provisions of ADR provided packaging of not more than 5 l / 5 kg	The product can be transported in accordance with IMDG Code paragraph 2.10.2.7, provided packaging not more than 5 l / 5 kg.	The product is not subject to any other provisions of IATA provided packaging of not more than 5 l / 5 kg (A197)
Limited Quantity	5 l	5 l	
Transport category	3		
14.5. Environmental hazards	-		
Tunnel restriction code	-		

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restriction according to annex XVII to regulation (EU) No 1907/2006

The product is subject to restrictions according to Annex XVII Regulation (EU) No. 1907/2006: Entry No. 3

Other information

All components are contained in the TSCA inventory or exempted.

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to

Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008)

Skin Irrit. 2	H315	Calculation method
Skin Sens. 1A	H317	Calculation method
Repr. 1B	H360Fd.	Calculation method
Aquatic Chronic 2	H411	Calculation method

Hazard statements listed in Chapter 2/3

H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H360Fd.	May damage fertility. Suspected of damaging the unborn child.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

CLP categories listed in Chapter 2/3

Acute Tox. 3	Acute toxicity, Category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic, Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Eye irritation, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion, Category 1B
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1A	Skin sensitization, Category 1A
Skin Sens. 1B	Skin sensitization, Category 1B

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.